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## Heart Failure and Cardiomyopathies

## SHORT- AND LONG-TERM REHOSPITALIZATION AND MORTALITY FOR HEART FAILURE IN FOUR RACIAL/ETHNIC POPULATIONS

Oral Contributions

Room 145 B

Saturday, March 29, 2014, 8:00 a.m.-8:15 a.m.

Session Title: Heart Failure Admissions: Recent Trends and Challenges

Abstract Category: 12. Heart Failure and Cardiomyopathies: Clinical

Presentation Number: 905-03

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**Background:** Outcomes in heart failure (HF) patients are poorly characterized across races/ethnicities. We examined 30-day and 1-year rehospitalization and mortality for HF in 4 racial/ethnic groups.

**Methods:** Using the Get With The Guidelines-HF registry linked with Medicare data for longitudinal outcomes, we compared outcomes between groups using a multivariable Cox proportional hazards model adjusting for clinical, hospital, and socioeconomic status (SES) variables.

**Results:** We analyzed 47,149 patients >65 y.o. from 2005-11: 39,213 non-Hispanic white (NHW 83%), 4,946 non-Hispanic black (NHB 11%), 2,347 Hispanic (H 5%), and 643 non-Hispanic Asian/Pacific Islander (NHA 1%). In contrast to NHW, NHB and H had higher 30d and 1y readmissions but lower 30d and 1y mortality; NHA had similar 30d readmission but lower 1y death (Table). Compared with NHW after adjustment for patient/hospital variables, NHB still had higher 30d and 1y CV readmission but modestly lower short- and long-term mortality; H had higher 30d and 1y readmission, and similar 30d and 1y death; NHA had similar outcomes. When SES was added to the model, the majority of associations persisted, but the difference in 30-d and 1y readmission between NHW and H patients became non-significant.

**Conclusions:** Among Medicare patients hospitalized with HF, there were important differences in short- and long-term readmissions and mortality in 4 racial/ethnic groups that persisted even after controlling for clinical, hospital and SES variables.

Table. Racial/Ethnic Differences in Short- and Long-Term Heart Failure Readmissions and Mortality

Outcome	Comparison (subgroup rate, %)	Unadjusted		Adjusted for patient and hospital characteristics		Adjusted for patient, SE and hospital characteristics	
		HR (95% CI)	P	HR (95% CI)	P	HR (95% CI)	P
<b>30-day outcomes</b>							
Mortality post-admission	NHB (5.6)	0.58	<0.01	0.73	<0.01	0.73	<0.01
	vs. NHW (9.7)	(0.46-0.64)		(0.64-0.83)		(0.65-0.83)	
	H (7.2)	0.31	0.01	0.88 (0.71, 1.07)	0.19	0.87	0.17
	vs. NHW	(0.59-0.91)				(0.71-1.06)	
	NHA (9.6)	0.98	0.90	0.95	0.66	0.99	0.94
	vs. NHW	(0.76-1.27)		(0.74-1.21)		(0.78-1.26)	
All-cause readmission post-discharge	NHB (23.1)	1.10	0.01	1.08	0.06	1.05	0.17
	vs. NHW (23.0)	(1.02-1.18)		(1.00-1.17)		(0.98-1.13)	
	H (26.3)	1.15	0.01	1.16	0.01	1.08	0.14
	vs. NHW	(1.02-1.28)		(1.04-1.29)		(0.99-1.19)	
	NHA (22.9)	1.00	0.98	1.07	0.39	1.03	0.83
	vs. NHW	(0.81-1.22)		(0.84-1.35)		(0.81-1.30)	
Mortality readmission post-discharge	NHB (27.4)	1.05	0.17	1.07	0.06	1.05	0.13
	vs. NHW (26.2)	(0.98-1.12)		(1.00-1.15)		(0.98-1.13)	
	H (28.3)	1.08	0.08	1.12	0.01	1.06	0.18
	vs. NHW	(0.99-1.19)		(1.02-1.23)		(0.97-1.16)	
	NHA (23.8)	0.99	0.88	1.05	0.46	1.02	0.83
	vs. NHW	(0.81-1.20)		(0.85-1.30)		(0.83-1.27)	
<b>1-year outcomes</b>							
Mortality post-admission	NHB (29.3)	0.72	<0.01	0.88	<0.01	0.88	<0.01
	vs. NHW (37.8)	(0.67-0.78)		(0.83-0.93)		(0.83-0.93)	
	H (32.2)	0.81	0.01	0.94	0.20	0.94	0.11
	vs. NHW	(0.72-0.90)		(0.86-1.03)		(0.86-1.02)	
	NHA (35.1)	0.90	0.11	0.91	0.18	0.92	0.23
	vs. NHW	(0.80-1.02)		(0.80-1.04)		(0.80-1.06)	
All-cause readmission post-discharge	NHB (72.9)	1.14	<0.01	1.13	0.01	1.10	0.01
	vs. NHW (66.9)	(1.07-1.20)		(1.06-1.20)		(1.04-1.16)	
	H (71.3)	1.10	0.01	1.13	0.01	1.06	0.09
	vs. NHW	(1.02-1.19)		(1.04-1.22)		(0.99-1.14)	
	NHA (66.5)	0.95	0.27	1.03	0.44	0.99	0.88
	vs. NHW	(0.86-1.04)		(0.92-1.15)		(0.89-1.11)	
CV readmission post-discharge	NHB (49.0)	1.22	<0.01	1.23	<0.01	1.20	<0.01
	vs. NHW (41.0)	(1.14-1.31)		(1.15-1.33)		(1.12-1.28)	
	H (47.5)	1.19	<0.01	1.23	<0.01	1.15	0.01
	vs. NHW	(1.11-1.29)		(1.12-1.34)		(1.09-1.24)	
	NHA (41.5)	1.01	0.89	1.11	0.09	1.07	0.29
	vs. NHW	(0.91-1.12)		(0.98-1.27)		(0.94-1.21)	
Mortality readmission post-discharge	NHB (78.0)	1.09	0.01	1.12	0.01	1.10	0.02
	vs. NHW (74.8)	(1.03-1.14)		(1.06-1.18)		(1.04-1.15)	
	H (75.7)	1.05	0.20	1.09	0.01	1.04	0.19
	vs. NHW	(0.99-1.12)		(1.02-1.17)		(0.99-1.11)	
	NHA (72.3)	0.92	0.06	0.99	0.82	0.96	0.43
	vs. NHW	(0.85-1.00)		(0.89-1.09)		(0.87-1.06)	